WHAT IS CLAIMED IS:

1. A diffractive optical element comprising:

a first layer having a relief type grating;

a second layer having a relief type grating; and

a third layer having a relief type grating;

said first, second and third layers being formed of different materials;

said diffractive optical element having at least three diffraction optical parts in the boundary areas of the respective layers;

said diffractive optical element being set so that at three wavelengths, the diffraction efficiency thereof for diffracted light of a predetermined order may be maximum, said three wavelengths being substantially coincident with the main wavelengths of the three primary colors.

2. The diffractive optical element of Claim 1, wherein at least one air layer is included among said first, second and third layers.

3. The diffractive optical element of Claim 1, wherein said three wavelengths are 450 ± 20 nm, 550 ± 20 nm and 650 ± 20 nm.

4. An optical system for forming an image on a photosensitive surface, comprising:

a diffractive optical element comprising:

a first layer having a relief type grating;

a second layer having a relief type grating; and

a third layer having a relief type grating;

said first, second and third layers being formed of different materials;

said diffractive optical element having at least three diffraction optical parts in the boundary areas of the respective layers;

said diffractive optical element being set so that at three wavelengths, the diffraction efficiency thereof may be maximum, said three wavelengths being substantially coincident with the main wavelengths of the three primary colors to which the sensitivity of said photosensitive surface is high.

5. An optical system for illuminating an original picture with light from a light source, and projecting the image of the illuminated original picture, provided with:

a diffractive optical element comprising:

a first layer having a relief type grating;

a second layer having a relief type grating; and

a third layer having a relief type grating;

said first, second and third layers being formed of different materials;

said diffractive optical element having at least

three diffraction optical parts in the boundary areas of the respective layers;

said diffractive optical element being set so that at three wavelengths, the diffraction efficiency thereof may be maximum, said three wavelengths being substantially coincident with the main wavelengths of the three primary colors included in the light from said light source.

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